

ABSTRACT OF THE DISCLOSURE

[0043] A microstrip coupler is provided which includes an controlled capacitance bridge for improved directivity as compared to prior art controlled capacitance bridges. The novel controlled capacitance bridge provides the functionality of prior art wire or ribbon controlled capacitance bridges and also provides the necessary capacitance to compensate for the different phase velocities of odd and even modes in the transmission lines. Both the dimensions of the controlled capacitance bridge and the dimensions of an input microstrip conductor may be adjusted to provide the appropriate level of capacitance. In some embodiments, the controlled capacitance bridge connects segments of an input microstrip conductor. In other embodiments, the controlled capacitance bridge connects microstrip conductors which are configured to couple an input signal from an input microstrip conductor.

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